MONTHLY WEATHER REVIEW,

MARCH, 1881.

(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In preparing this REVIEW the following data, received up to April 20th, have been used, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 136 Signal Service stations and 15 Canadian stations, as telegraphed to this office; 183 monthly journals and 178 monthly means from the former, and 15 monthly means from the latter; reports from 5 Sunset stations; 255 monthly registers from Voluntary Observers; 62 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Services of, Iowa, Nebraska and Missouri, and of the Central Pacific Railway Co.: reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

The distribution of mean atmospheric pressure over the United States and Canada for the month of March, 1881, is shown by isobaric lines (in black) upon chart No. II. The area of highest barometer, which has been moving steadily eastward from the Pacific since November, 1880, and which during the following months of December and January was so marked over the central portions of the country, has during the present month passed far eastward over the Atlantic leaving a remarkably low mean pressure over the eastern sections of the country, particularly from the Ohio valley and Virginia northeastward to Maine. The rapidity and extent of this eastward movement is shown quite forcibly on the wind chart by the general and decided northwesterly trend of the winds eastward of the Rocky Mountains. The regions of maximum pressure are to be found along the immediate Gulf and Pacific coasts, where only immaterial changes have taken place during the month. Compared with March, 1880, the pressure of the present month is strikingly at variance, as is shown by the position of the region of highest pressure, which in 1880 occupied the precise region now embraced by the abnormally low pressures of the present month.

Departures from the Normal values for the month.—The region of greatest departure from the normal covers the eastern portion of the Middle Atlantic and New England States ranging from —0.25 at Norfolk to —0.32 at Wood's Holl; along the South Atlantic and East Gulf coasts the departure ranges from —0.05 at Key West to —0.24 at Kittyhawk; over the Lake region from +0.01 at Duluth to —0.18 at Toledo and —0.23 at Oswego; in the Ohio valley and Tennessee, from —0.13 at Memphis to —0.21 at Pittsburg; in the Upper Mississippi and Lower Missouri valleys, from —0.02 at Omaha to —0.14 at St. Louis; in the West Gulf States and Texas, from —0.02 at Corsicana to —0.11 at Vicksburg; westward of the Missouri river and northward of Colorado the pressure is from 0.03 to 0.4 above the normal, while the line of no change passes southwestward from Lake Superior in nearly a direct course to Santa Fe, where it bends northward reaching the Pacific coast at the southern boundary of Oregon. Throughout California the pressure fell from 0.03 to 0.06 below the normal.